

CHAPTER 3

LOGISTICS

As an Electronics Technician, you will definitely be involved with the supply department in getting the exact items you need to complete your tasks. To work effectively and smoothly with the supply department, you must understand how to use the supply system. This chapter should help you understand the overall operation of the system.

NAVAL SUPPLY SYSTEMS COMMAND

The Naval Supply Systems Command (NAVSUP-SYSCOM) controls the procurement of materials and services throughout the Department of the Navy. It combines into one overall system inventory managers, distribution activities, and other activities that are responsible for providing responsive and efficient material support to the operating forces of the Navy.

INVENTORY MANAGERS

Navy inventory managers have the primary responsibility for managing assigned groups or categories of items of supply. The primary function of an inventory manager is to balance parts required and parts available so that Navy fleet and shore activities receive effective and efficient support. Navy inventory managers include systems commands, project managers, bureaus, offices (including Military Sealift Command), and inventory control points (ICPs) under the command of NAVSUPSYSCOM.

INVENTORY CONTROL POINTS (ICPs)

Each ICP manages one or more types of material held at stock points in a distribution system. The ICPs position materials at stock points, maintain inventory control through an extensive stock reporting system, and provide technical assistance and cataloging services to the supply system and its customers.

STOCK POINTS

Stock points are large facilities, such as supply centers and depots, that stock parts and assemblies for shipment to requesting commands.

Supply Centers and Depots

Naval supply centers (NSCs) and depots are command organizations that furnish supply support to fleet units and shore activities. These stock points are primarily concerned with procuring, receiving, storing, issuing, and shipping material. Fleet and shore activities send requisitions to the stock points; which, in turn, ship the material and bill the unit for payment. The stock points inform the ICPs of material shipped so the ICPs can track the inventory level and determine when to buy additional material. Stock points stock Navy, Defense Logistics Agency, and General Service Administration cognizance material for issue to supported units.

Supply centers and depots perform similar functions, but at different levels. Supply centers are managed by the Naval Supply Systems Command and support supply depots and other activities that perform depot functions. Supply depots are commanded by a fleet command and normally support only local commands.

Industrial Naval Air Stations (INAs)

The INAs are primary Navy stock points for aviation material. These stock points are collocated with Naval Aviation Depots (NADEPs) and function as storage and shipment points of aviation cognizance material. The INAs report transactions of aviation material to the cognizant ICP.

MOBILE LOGISTICS SUPPORT FORCE (MLSF)

The purpose of the MLSF is to release deployed fleet units from direct dependence on shore bases for supply support. To do this, the MLSF stocks militarily essential items in high demand by deployed fleet units. The materials carried by MLSF ships are listed in the *Consolidated Afloat Requisitioning Guide Overseas (CARGO)*, NAVSUPP-4998-A (Atlantic) and P-4990-P (Pacific).

GENERAL SERVICES ADMINISTRATION (GSA)

The General Services Administration controls items of material that are common to both military and civilian worlds. Examples of GSA items are paint, paper, handtools, chalkboards, movie projectors, and the like. GSA items are stocked at the naval supply centers located in Norfolk Virginia; and San Diego, California.

DEFENSE LOGISTICS AGENCY (DLA)

The Defense Logistics Agency controls items of material that are common to all the military services but not to the civilian world. Examples of DLA items are fuels and bullets. DLA items are also stocked at the Norfolk and San Diego naval supply centers.

INTEGRATED NAVY SUPPLY SYSTEM

The Navy supply system is an *integrated* system, allowing materials to be obtained usually from more than one point in the system. In the remainder of this chapter, we will discuss the Navy supply system in general, introduce the primary instructions and forms, and provide a brief description of how to use the system to get parts and supplies.

The following is a description of how the integrated Navy Supply System might react to a typical supply requisition:

1. USS Ship requisitions cognizance symbol 9N material from the NSC.
2. The NSC, a Navy retail stock point, usually ships the requested material. However, after screening its stocks, the NSC determines that the requested material is not carried. It then refers the requisition to the Defense Electronics Supply Center (DESC), Dayton, the cognizant inventory manager.
3. The DESC, Dayton, after researching its master records and determining that the material is available at NSC Oakland (a specialized support point), refers the requisition to NSC, Oakland.
4. The NSC, Oakland, issues the material to USS ship.
5. The NSC, Oakland, then makes an issue transaction report to DESC, Dayton.
6. The DESC, Dayton, after applying the issue report to its master record, learns that stock of the item at NSC, Oakland, is below the required

level and issues a contract to the ABC Corporation for additional stocks of the item.

7. The ABC Corporation ships the material to NSC, Oakland.
8. The NSC, Oakland, makes a receipt transaction report to DESC, Dayton.

As you can see, if an item is not available at the local NSC, the requisition does some traveling. So it may take a little time to get the item you requested.

COORDINATED SHIPBOARD/ SHOREBASED ALLOWANCE LIST (COSAL/COSBAL)

The COSAL/COSBAL is the document that drives the operational and supply support for a ship. It is a dynamic document that changes constantly, as the ship's configuration changes. Each ship in the U.S. Navy has its own COSAL or COSBAL tailored specifically to its mission. The COSAL or COSBAL lists include the following:

- The equipment or components required for the unit to perform its operational assignments
- The repair parts and special tool required for the operation, overhaul, and repair of those equipments
- The miscellaneous portable items necessary for the care and upkeep of the unit

The COSAL/COSBAL is both a technical document and a supply document. It provides nomenclature, operating characteristics, specifications, parts list, and other technical data pertaining to all installed equipment and machinery. It also provides nomenclature and characteristics of the equipage and tools required to operate and maintain the unit and its equipment.

No one can predict exactly when a circuit card in an AN/URT-23 will fail or when a bearing will wear out in a freshwater pump. However, the COSAL/COSBAL can help maintenance and supply personnel in a unit to make an educated guess. The COSAL/COSBAL computers analyze the frequency of failures of parts used aboard units and, based on these analyses, develop an allowance of repair parts that the supply officer should stock.

The COSAL/COSBAL is used primarily for two purposes-to identify repair parts (storeroom items) and to determine operating space allowances (equipage).

NAVJAG FORM 1306 (4-77) (1-46)

SUMMARY OF EFFECTIVE ALLOWANCE PARTS/EQUIPAGE LISTS

EQUIPMENT/COMPONENT/EQUIPAGE IDENTIFICATION NUMBERS							
017820041	030050018	051260318	061900047	070990063	130010008	140900048	151200524
017820128	030060005	051260331	070090004	070990064	131300293	140900049	151200525
017710001	030060006	057150025	070090005	070990065	131300486	140900052	151200530
017710002	030080004	057150032	070090017	070990067	131900029	140900054	151200551

1-480264002	1-870014002	1-870014003
1-480264003	1-870014005	1-870014006
1-480264005	1-870014010	1-870014011
1-820010001	1-870014018	1-870014019

2-470004015	2-550034012	2-820064002	2-870004013
2-480024003	2-550004010	2-820064004	2-870004019
2-510004001	2-550004015	2-820064007	2-870004025
2-510004002	2-550004020	2-820064009	2-870004027

2	3	4
DD 0001	07-15-74	SUMMARY OF EFFECTIVE ALLOWANCE PARTS/EQUIPAGE LISTS
<small>SHIP TYPE & HULL NO.</small>	<small>DATE</small>	<small>PAGE</small>

1. EQUIPMENT/COMPONENT/EQUIPAGE IDENTIFICATION NUMBERS - THE APL AND AEL IDENTIFICATION NUMBERS ARE IN NUMERICAL SEQUENCE STARTING AT THE TOP OF THE PAGE AND CONTINUING TO THE BOTTOM AND FROM LEFT TO RIGHT
2. SHIP TYPE AND HULL NO - THE SPECIFIC SHIP FOR WHICH THE SUMMARY IS PUBLISHED
3. DATE - MAY BE SHOWN AS A JULIAN DATE (4196 - JULY 1974) OR AS MONTH-DAY-YEAR.
4. PAGE - CONSECUTIVE PAGE NUMBER OF THE SUMMARY

Figure 3-1.—Summary of effective allowance parts/equipage lists (SOEAPL).

Description of COSAL Parts and Sections

Since the COSAL and COSBAL are similar, we will describe just the COSAL parts and sections. Certain aviation components (aviation supply offices [ASOs]) will also be included in the COSAL when specifically designated. For more information and complete instructions in the use of the COSAL, we recommend that you read the *COSAL Use and Maintenance Manual*, SPCCINST 4441.170.

Each COSAL publication is produced in three parts. Part I contains indexes. Part II contains associated APLs and AELs. Part III contains allowances and cross-reference data. The three parts are subdivided as follows:

Part I

Summary of Effective Allowance Parts/Equipage Lists (SOEAPL)

Index-Section A (Equipment Nomenclature Sequence)

Index-Sections B, C, D, and E

Part II

Section A-Allowance Parts Lists (APLs)

Section B-Circuit Symbol Data (microfiche only)

Section C-Allowance Equipage Lists (AEL)

Part III

Section A-Storeroom Items (SRI)

Stock Number Sequence List (SNSL)

Section B-Operating Space Items (OSI)

Stock Number Sequence List (SNSL)

Section CF-Maintenance Assistance Module (MAM)

Section CR-Ready Service Spares (RSS)

Section D-Alternate Number Cross-Reference to Stock Number

Section E-General Use Consumables List (GUCL)

Section F-Forms and Publications

The following paragraphs provide a brief description of the parts of the COSAL listed above:

PART I-SUMMARY.—The Summary of Effective Allowance Parts/Equipage Lists (SOEAPL) is a numerical listing of all APLs and AELs used to determine how many of each part is listed on the stock number sequence list (SNSL). Figure 3-1 is an example of a summary page, with a description of the information it contains.

NAVJAGDA FORM 1207 (4-77) (1-40)

COSAL INDEX — PART I (SECTION A)

EQUIP/COMP/REC	EQUIPMENT/COMPONENT/EQUIPAGE NOMENCLATURE/CHARACTERISTICS	IDENTIFICATION NO.	QUAN-TITY	COL NO	NOTES	* ALLOW SUPT CODE	SERVICE APPLICATION/INFORMATION
NV	AN-CRT-3	54390900	3			EEPAA	RADIO
NV	AN-PIP-1A	56403101	1			AEPAA	IC PUBLIC ADDRESS SET
V	AN-SRC-21	57112100	2			EEPAA	RADIO
V	AN-URC-32	58442100	1			EEPAA	RADIO
V	TRANSMITTER, COURSE ORDER MK42M0	49401615	2			MEPAA	FCS TRANSMITTER

12345678

9101112

DD 0001	0015	1st digit 2nd & 3rd digits 4th & 5th digits	Technical Bureau/Comptance Program Support Authority Logistics Support Bureau
SHIP TYPE & HULL NO.	DATE	* ALLOWANCE SUPPORT CODES	PART SECTION PAGE
			I A 29

0108 303 7900

NAVJAGDA FORM 1208 (4-77) (1-40)

COSAL INDEX — PART I (SECTION B)

SERVICE APPLICATION/INFORMATION	EQUIP/COMP/REC	EQUIPMENT/COMPONENT/EQUIPAGE NOMENCLATURE CHARACTERISTICS	IDENTIFICATION NO.	QUAN-TITY	COL NO	NOTES	* ALLOW SUPT CODE
AN/SLQ-32 ELECTRONICS COUNTERMEASURES SYSTEM 4ANSLQ32	V	AN-70002/SLQ-32(V), AMPL, RF	52505502	2			EEPAA
	V	AN/SLQ-32(V)2, COUNTERMEASURES SET	56940368CL	1			EEPAA
	V	AS-3316/SLQ-32(V), ANTENNA ASSY	59226865	2			EEPAA
	V	AS-3317/SLQ-32(V), ANTENNA	59226866	2			EEPAA
	V	AS-3318/SLQ-32(V), ANTENNA	59226567	2			EEPAA
	V	CP-1370/SLQ-32(V), PROCESSOR, SIGNAL DATA	62405309	2			EEPAA
AN/SPS-49 RADAR SYSTEM 2ANSP549	V	CP-1375/SLQ-32(V), PROCESSOR, SIGNAL DATA	62405311	1			EEPAA
	V	AN/SPM-23, TEST SET, RADAR	92019105	1			XEPAA
	V	AN/SPS-49(V)2 FC1 P/O R-2/SPS-49(V)	57041230FA	1			XESAC
	V	AN/SPS-49(V)2, RADAR SET	57040502CL	1			XEPAU
	V	AS-3263/SPS-49(V), ANTENNA	59226806	1			XEPAA
	V	BZ221/U, BUZZER	57040416	2			XEPAA
V	CN-1446/SPS-49(V), REGULATOR ASSEMBLY, VOLT	62364417	1			XEPAA	

89101112

13141516171819

FFG 10	07-15-85	1st digit 2nd & 3rd digits 4th & 5th digits	Technical Bureau/Comptance Program Support Authority Logistics Support Bureau
SHIP TYPE & HULL NO.	DATE	* ALLOWANCE SUPPORT CODES	PART SECTION PAGE
			1 B E 1

0108 303 8000

Figure 3-2.—COSAL indexes.

Table 3-1.—Description of Contents of Columns of COSAL Index

1. Equipment/Component Military Essentiality Code	Indicates those items of equipment that are essential to the ship's mission. V - Vital. Failure of the equipment could reduce the ship's capability to perform its mission. NV - Nonvital. Failure of the equipment would not adversely affect the ship's mission.
2. Equipment/Component/Equipage Nomenclature/Characteristics	The noun name and partial characteristic description of each APL and AEL.
3. Identification Number	The APL or AEL identification number.
4. Quantity	The quantity of each equipment/component per service aboard ship, covered by the applicable APL. Column 4 will be blank for all AELs.
5. Column Number	The applicable AEL column number from which the allowance is determined. This column is blank for all APLs.
6. Notes	A code that indicates specific information about an APL/AEL entry. These codes are listed and defined in the Introduction.
7. Allowance Support Code	Reserved for future use. (See item 11.)
8. Service Application/Information	The service or major shipboard function in which the equipment/component/equipage operates or performs a service.
9. Ship Type and Hull Number	The specific ship for which the COSAL is prepared.
10. Date	Date of preparation (may be expressed as Julian or month-day-year date).
11. Allowance Support Codes	Pertains to item 7.
12. Page	Consecutive page numbering from first page to last. Page numbers preceded by "H" apply to Hull, Mechanical and Electrical (Example H-1). Page numbers preceded by "Z" apply to Ordnance(Example Z-1).

*Refer to Figure 3-2.

PART I-COSAL INDEX.- The Index identifies the APLs and AELs associated with the ship's equipment. It also provides other information, such as the code of the work center responsible for the maintenance and various maintenance-related codes. The index is published in five parts, sections A through E. Sections A and B provide a cross-index of all APL/AELs listed in Part II. They contain the same information, but in two slightly different formats. Figure 3-2 shows both the A and B indexes. All areas of information are in the same relative positions, except

that column 8 in Section A listings shifts over to become column 1 in section B listings.

The bulk of the information you will need to repair an item covered by COSAL is contained on the appropriate APL or AEL. To identify the appropriate APL or AEL, you will need to look up either the name of the equipment in Section A or the use of that equipment infection B.

Table 3-1 describes the uses of the Index columns and is keyed to the numbers shown in figure 3-2.

NAVJAG FORM 1210 (2-77) (1-4)		ALLOWANCE PARTS LIST (APL)		3	4	5
EQUIPAGE NOMENCLATURE/CHARACTERISTICS		TECHNICAL DOCUMENT NUMBER	MANUAL	IDENTIFICATION NO	DATE	PAGE
C-3868-SRC			334-2163	430190918	07-15-7-	1
CHARACTERISTICS		SAMPLE ONLY		ON BOARD ALLOWANCE TABLE		
MFR ACE ELECTRONICS CO. NAVCOM PLAN- MFR DWG-2300-157 MFR ID-GR PATTERN NO-130 EQUIP SPEC-MIL-M-280 FSN- LAPL-43-016 TYPE-II CLASS-2 SIZE- DRIVE-MOTOR MFR MOTOR IDENT- VOLTS-115 FREQUENCY-AC PHASE-SINGLE AMPS-5.3 HP-.333 0742				COL 1	COL 2	COL 3
STARTER-MTR MOTOR-AC				COL 4	COL 5	COL 6
61482 BEARING ASSY-KN 61482 BELT-V OTS CRCM 61482 WHEEL-ABRSV 61482 BELT-V OTS CRCM				COL 7	COL 8	COL 9
ADDITIONAL MANUAL NO/S 334-0000				COL 10	COL 11	COL 12
151403699 173330037				COL 13	COL 14	COL 15
92 3110-00-225-6093 9C 3030-00-528-4256 9G 7320-00-297-0852 9C 3030-00-528-4254				COL 16	COL 17	COL 18
1PA 2Z Z 1 EA 1PA 2Z Z 2 3PA 2Z 1PA 2Z Z 2				COL 19	COL 20	COL 21
SEE SNL FOR ALLOW				COL 22	COL 23	COL 24
1255				COL 25	COL 26	COL 27
1255				COL 28	COL 29	COL 30
1255				COL 31	COL 32	COL 33
1255				COL 34	COL 35	COL 36
1255				COL 37	COL 38	COL 39
1255				COL 40	COL 41	COL 42
1255				COL 43	COL 44	COL 45
1255				COL 46	COL 47	COL 48
1255				COL 49	COL 50	COL 51
1255				COL 52	COL 53	COL 54
1255				COL 55	COL 56	COL 57
1255				COL 58	COL 59	COL 60
1255				COL 61	COL 62	COL 63
1255				COL 64	COL 65	COL 66
1255				COL 67	COL 68	COL 69
1255				COL 70	COL 71	COL 72
1255				COL 73	COL 74	COL 75
1255				COL 76	COL 77	COL 78
1255				COL 79	COL 80	COL 81
1255				COL 82	COL 83	COL 84
1255				COL 85	COL 86	COL 87
1255				COL 88	COL 89	COL 90
1255				COL 91	COL 92	COL 93
1255				COL 94	COL 95	COL 96
1255				COL 97	COL 98	COL 99
1255				COL 100	COL 101	COL 102
1255				COL 103	COL 104	COL 105
1255				COL 106	COL 107	COL 108
1255				COL 109	COL 110	COL 111
1255				COL 112	COL 113	COL 114
1255				COL 115	COL 116	COL 117
1255				COL 118	COL 119	COL 120
1255				COL 121	COL 122	COL 123
1255				COL 124	COL 125	COL 126
1255				COL 127	COL 128	COL 129
1255				COL 130	COL 131	COL 132
1255				COL 133	COL 134	COL 135
1255				COL 136	COL 137	COL 138
1255				COL 139	COL 140	COL 141
1255				COL 142	COL 143	COL 144
1255				COL 145	COL 146	COL 147
1255				COL 148	COL 149	COL 150
1255				COL 151	COL 152	COL 153
1255				COL 154	COL 155	COL 156
1255				COL 157	COL 158	COL 159
1255				COL 160	COL 161	COL 162
1255				COL 163	COL 164	COL 165
1255				COL 166	COL 167	COL 168
1255				COL 169	COL 170	COL 171
1255				COL 172	COL 173	COL 174
1255				COL 175	COL 176	COL 177
1255				COL 178	COL 179	COL 180
1255				COL 181	COL 182	COL 183
1255				COL 184	COL 185	COL 186
1255				COL 187	COL 188	COL 189
1255				COL 190	COL 191	COL 192
1255				COL 193	COL 194	COL 195
1255				COL 196	COL 197	COL 198
1255				COL 199	COL 200	COL 201
1255				COL 202	COL 203	COL 204
1255				COL 205	COL 206	COL 207
1255				COL 208	COL 209	COL 210
1255				COL 211	COL 212	COL 213
1255				COL 214	COL 215	COL 216
1255				COL 217	COL 218	COL 219
1255				COL 220	COL 221	COL 222
1255				COL 223	COL 224	COL 225
1255				COL 226	COL 227	COL 228
1255				COL 229	COL 230	COL 231
1255				COL 232	COL 233	COL 234
1255				COL 235	COL 236	COL 237
1255				COL 238	COL 239	COL 240
1255				COL 241	COL 242	COL 243
1255				COL 244	COL 245	COL 246
1255				COL 247	COL 248	COL 249
1255				COL 250	COL 251	COL 252
1255				COL 253	COL 254	COL 255
1255				COL 256	COL 257	COL 258
1255				COL 259	COL 260	COL 261
1255				COL 262	COL 263	COL 264
1255				COL 265	COL 266	COL 267
1255				COL 268	COL 269	COL 270
1255				COL 271	COL 272	COL 273
1255				COL 274	COL 275	COL 276
1255				COL 277	COL 278	COL 279
1255				COL 280	COL 281	COL 282
1255				COL 283	COL 284	COL 285
1255				COL 286	COL 287	COL 288
1255				COL 289	COL 290	COL 291
1255				COL 292	COL 293	COL 294
1255				COL 295	COL 296	COL 297
1255				COL 298	COL 299	COL 300
1255				COL 301	COL 302	COL 303
1255				COL 304	COL 305	COL 306
1255				COL 307	COL 308	COL 309
1255				COL 310	COL 311	COL 312
1255				COL 313	COL 314	COL 315
1255				COL 316	COL 317	COL 318
1255				COL 319	COL 320	COL 321
1255				COL 322	COL 323	COL 324
1255				COL 325	COL 326	COL 327
1255				COL 328	COL 329	COL 330
1255				COL 331	COL 332	COL 333
1255				COL 334	COL 335	COL 336
1255				COL 337	COL 338	COL 339
1255				COL 340	COL 341	COL 342
1255				COL 343	COL 344	COL 345
1255				COL 346	COL 347	COL 348
1255				COL 349	COL 350	COL 351
1255				COL 352	COL 353	COL 354
1255				COL 355	COL 356	COL 357
1255				COL 358	COL 359	COL 360
1255				COL 361	COL 362	COL 363
1255				COL 364	COL 365	COL 366
1255				COL 367	COL 368	COL 369
1255				COL 370	COL 371	COL 372
1255				COL 373	COL 374	COL 375
1255				COL 376	COL 377	COL 378
1255				COL 379	COL 380	COL 381
1255				COL 382	COL 383	COL 384
1255				COL 385	COL 386	COL 387
1255				COL 388	COL 389	COL 390
1255				COL 391	COL 392	COL 393
1255				COL 394	COL 395	COL 396
1255				COL 397	COL 398	COL 399
1255				COL 400	COL 401	COL 402
1255				COL 403	COL 404	COL 405
1255				COL 406	COL 407	COL 408
1255				COL 409	COL 410	COL 411
1255				COL 412	COL 413	COL 414
1255				COL 415	COL 416	COL 417
1255				COL 418	COL 419	COL 420
1255				COL 421	COL 422	COL 423
1255				COL 424	COL 425	COL 426
1255				COL 427	COL 428	COL 429
1255				COL 430	COL 431	COL 432
1255				COL 433	COL 434	COL 435
1255				COL 436	COL 437	COL 438
1255				COL 439	COL 440	COL 441
1255				COL 442	COL 443	COL 444
1255				COL 445	COL 446	COL 447
1255				COL 448	COL 449	COL 450
1255				COL 451	COL 452	COL 453
1255				COL 454	COL 455	COL 456
1255				COL 457	COL 458	COL 459
1255				COL 460	COL 461	COL 462
1255				COL 463	COL 464	COL 465
1255				COL 466	COL 467	COL 468
1255				COL 469	COL 470	COL 471
1255				COL 472	COL 473	COL 474
1255				COL 475	COL 476	COL 477
1255				COL 478	COL 479	COL 480
1255				COL 481	COL 482	COL 483
1255				COL 484	COL 485	COL 486
1255				COL 487	COL 488	COL 489
1255				COL 490	COL 491	COL 492
1255				COL 493	COL 494	COL 495
1255				COL 496	COL 497	COL 498
1255				COL 499	COL 500	COL 501
1255				COL 502	COL 503	COL 504
1255				COL 505	COL 506	COL 507
1255				COL 508	COL 509	COL 510
1255				COL 511	COL 512	COL 513
1255				COL 514	COL 515	COL 516
1255				COL 517	COL 518	COL 519
1255				COL 520	COL 521	COL 522
1255				COL 523	COL 524	COL 525
1255				COL 526	COL 527	COL 528
1255				COL 529	COL 530	COL 531
1255				COL 532	COL 533	COL 534

Table 3-2.—Data Elements of the APL

1. Equipment/Component Nomenclature/Characteristics	Name of equipment or component and brief description. This corresponds to the Index entries.
2. Technical Document Number	The predominant technical manual or plan number. Additional numbers shown in item 8.
3. Identification Number	Identifying number assigned to a particular item or component of equipment. This number is shown at top and bottom of page.
4. Date	COSAL publication date.
5. Page	Consecutive numbering of all pages required to describe one equipment/component which is identified by a single APL number. This is shown at both top and bottom of page. APLs have the word "END" printed in the center of the page immediately following the last line of data for that APL. This enables you to ensure that you have a complete APL.
6. Characteristics	Complete nameplate data on the equipment/component named in item 1.
7. Reference/Symbol Number	A number, other than an NSN, by which a part may be identified, arranged in alpha/numeric sequence. It may be a manufacturer's part, drawing, piece, or circuit symbol number.
8. Additional Data Area	When additional technical manuals or plans are applicable, they are listed in this area under an appropriate caption. These are in addition to those listed in items 2 and 6.
9. Item Name	The name listing of repair parts and/or related accessory components for the equipment/component covered by the APL.
10. Stock Number	The NSN assigned to a specific repair part. When an NSN has not been assigned, the reference number from item 7 is repeated.
11. Accessory Components	Accessory components applicable to a "Parent Equipment" are listed on the "Parent APL." Any additional accessory components not listed on the APL should be reported to SPCC.
12. Federal Supply Code for Manufacturers (FSCM)	Indicates a coded number of a manufacturer.
13. Part Military Essentiality Code (Part MEC)	There are two codes. They are shown on the APL and the SNSL. 1 - Failure of the part would have a major effect on the dependence/operation of the component. 3 - Failure of the part would have little effect on the dependence/operation of the component.
14. Source Code	Indicates the availability of repair parts and method of procurement. These codes are defined in the Introduction.
15. Maintenance Code	A three digit code signifying the maintenance activity authorized to replace, repair, and condemn an item. Only first digit now used. These codes are defined in the Introduction.
16. Recoverability Condemnation Code	Indicates the recoverability characteristics of items removed during maintenance. R - Repairable S - Salvageable C - Consumable
17. Notes Code	Provides necessary and important information about individual items listed on the APL. The Introduction lists and defines these codes.
18. Quantity in One Equipment/Component	The total population of the part within the equipment/component described by the APL.
19. Unit of Issue	The term connotes the physical measurement or count of quantities of an item for procurement, storage, and issue.
20. Allowance Item Code	Refer to Part III to determine applicable allowances.
21. On-Board Allowance Table	APLs published as part of an allowance list for ship-board use and contained in Part II of the COSAL will not have quantities printed in the onboard allowance table columns. Instead, "SEE SNSL FOR ALLOW" will be printed. APLs which are received after the regular COSAL will have quantities shown so you can update your SNSL and stock record cards.
22. Ship Type and Hull Number	The specific ship/activity for which the APL is published.
23. Page	Consecutive page numbering from first page to last of all APL pages published as Part II.
24. Identification Number	Same as item 3 above.
25. Date	Same as item 4 above.
26. Page	Same as item 5 above.

*Refer to Figure 3-3.

PART II, SECTION A-ALLOWANCE PARTS LIST (APL).—An APL (fig. 3-3) is a technical document that lists the repair parts authorized to be kept on board a ship for a particular piece of equipment. Separate APLs are prepared for each different piece of equipment on board a ship and for each major component of the equipment. APLs are listed in numerical sequence by

identification number in Part II of the COSAL. The parts data contained in each APL is arranged in alphanumeric order by part reference or symbol number. This part number is a number, other than a stock number, by which the part may be identified. Examples of such a number are a manufacturer's number, a service part number, and a drawing or circuit symbol number. In table 3-2, the

Table 3-3.—Data Elements of the APL, Section B

- (1) Unit. The Unit Number assigned by the manufacturer. (Part of the CSN).
- (2) CSN — Circuit Symbol Number which is obtained from the equipment technical manual or drawings. (Also known as the Reference Symbol Number.) When APLs are in Part Number sequence, the Part Number will appear in this space.
- (3) Notes — For Codes and Definitions see Appendix (C).
- (4) FSCM-REF#/ ACN/NIIN — The FSCM and reference number, ACN or NIIN which applies to this CSN.
- (5) SMR — Source and Maintenance Recoverability Code which applies to this application. (see Appendix C for definition).
- (6) APPL — Number of applications with the same CSN.
- (7) ADD — An addendum indicator showing how this item was affected by cumulative addenda issued by SPCC. for this APL, (i.e., A = Added, D = Deleted, C = Changed, F = NIIN update, * = this item is appearing for the first time in this addendum. When the APL is revised, no addendum indicators appear.
- (8) Nomenclature. The equipment for which the APL is prepared.
- (9) APL Number. The equipment/component identification number.

HOW TO USE SECTION B

Determine the NIIN (FIIN) ACN or Part Number from Section B, referring to the Reference Symbol Number on Part II, Section A or C (which ever is applicable). The Reference Symbol Number is crossed to the stock number column which will reflect the latest NSN or ACN. Refer to the applicable section of the COSAL Part III to determine if the item is allowed.

* Refer to Figure 3-4.

sections contain information such as stock number, item name, identification of the equipment in or on which the item is intended for use, and specific supply management information.

PART III, SECTION E-GENERAL USE CONSUMABLES LIST (GUCL).— The GUCL identifies consumables used for general purposes in the routine maintenance and administration of the ship. The items listed in the GUCL are in addition to materials listed in other parts of the ship's COSAL. The GUCL is published by the Fleet Material Support Office (FMSO), but only for new construction, major conversion, or

reactivated units. Normally, it will not be published with or for COSALs resulting from ship overhaul or maintenance actions.

The GUCL contains basic information, such as nomenclature, NSN, unit of issue, weight, and price for both hazardous and nonhazardous materials kept or used in operating spaces and store rooms.

PART III, SECTION F-FORMS AND PUBLICATIONS.— Section F identifies the various forms and publications the ship needs to conduct normal business and provides information on how to obtain them.

How to Use the COSAL

Once you become familiar with the indexes, you will find the COSAL easy to use. The best way to gain this familiarity is by studying the COSAL for your command. Read the entries in both the Part I, Section A and B indexes, then see how they provide across-index by using the same entries but in a different sequence. As you study the entries, refer to the introduction for the meanings of abbreviations that you do not understand.

Chapter 4 of the *COSAL Use and Maintenance Manual* provides instructions for using the COSAL. After you have become familiar with the terminology (chapters 1 through 3), refer to chapter 4 for further instructions and sample problems.

To be of maximum use to you, the COSAL must be kept up-to-date at all times. Anytime you use the COSAL, check to be sure it is up-to-date. In the following paragraphs we will discuss the use of the COSAL according to SPCCINST 4441.170, the *COSAL Use and Maintenance Manual*.

METHODS OF ENTRY.- You may enter the COSAL by any of the following methods:

- By the name of the equipment/component or equipage—use Part I, Section A of the Index
- By the shipboard service application, location, or end use of the equipment/component or equipage—use Part I, Section B of the Index
- By the circuit symbol number (CSN) of the part—use Part II, Section B (microfiche only) to cross-reference the CSN to the NINN/PNICN/TNICN/FSCM/REF. NO. Then use Part II, Section A, to cross-reference the above number to the NSN/PNICN/TNICN
- By the NIIN/part number—use Part III, Section A or B
- By an alternate part number—use Part III, Section D to cross reference alternate numbers to NIIN/PNICN/TNICNs

ORDERING PARTS, TOOLS, AND SUPPLIES

There are numerous supply publications that you should be familiar with to use the supply system to its full capability when you requisition parts and tools. These publications are discussed in *Military Requirements for Petty Officer Third Class*, NAVEDTRA 12044.

Although the supply department is responsible for supplies, you, the technician, need to know how to identify what is needed, how to write out the request, and how to report on the use of the supplies. The publications containing the stock numbers are kept in the supply department; therefore, to perform your assigned duties, you *must* cooperate with supply personnel.



SUPPLY REQUISITION FORMS

Documenting material usage and cost data on maintenance transactions requires a joint effort of the ship's supply and maintenance personnel. NAVSUP Form 1250 and DD Form 1348 (discussed in *Military Requirements for Petty Officer Third Class* and OPNAVINST 4790.4) are the primary supply documents used by maintenance personnel. They are used to requisition parts and materials and to record material usage and cost data in support of maintenance actions. Normally, maintenance personnel are responsible for filling out and forwarding the supply forms for materials that they need to do their jobs. However, supply personnel will provide assistance whenever difficult or unusual documentation problems arise.

Some ships have automated supply systems; others have manual supply systems.

On a nonautomated ship, when a repair part is needed before a specific maintenance action can be completed, maintenance personnel use NAVSUP Form 1250 to request the issue of the part from the ship's supply department. Supply personnel issue the part if it is in stock aboard ship. If the part is not in stock supply uses the information on the form to order the part from an off-ship source. Nonautomated ships also use the NAVSUP Form 1250 to request chargeable services.

On an automated ship, when a repair part is required to complete a specific maintenance action, maintenance personnel use DD Form 1348. Chargeable services are also requisitioned on the DD Form 1348.

All submarine forces, automated and non-automated, use NAVSUP Form 1250-1 as a consumption document. Nonautomated ships of the submarine force use it as a Military Standard

1. REQ DATE 2196	2. DEPT NO 0691	3. URGY C	4. RDD	5. LOCATION	6. SIM <input type="checkbox"/> SIM <input type="checkbox"/> NON-SIM	7. ISSUE DATE	A. REQD QTY	B. REQD NO
8. NOUN NAME OR REF SYM FUSE		9. FPR <input type="checkbox"/>	10. APL/AEL/CID 57039600		11. INV QTY	12. NIS <input type="checkbox"/> N/C <input type="checkbox"/>	C. OBL AMT	D. POSTED
JOB CONTROL NUMBER					17. EQUIP COSAL SUPPLY'D YES <input type="checkbox"/> NO <input type="checkbox"/>		E. URG <input type="checkbox"/> MART <input type="checkbox"/>	S/R (REQD O/S)
13. UIC	14. WC	15. JSN	16. EIC		17. EQUIP COSAL SUPPLY'D		PROJ	OPTAR LOG
18. SC					19. COG		20. MCC	
21. FSC					22. NIIN		23. SMC	
24. U/I					25. QUANTITY		26. UNIT PRICE	
27. EXTENDED PRICE					28. FUND			
29. REMARKS					30. APPROVED BY			
					31. RECEIVED BY			

1. REQ DATE 2196	2. DEPT NO 0692	3. URGY B	4. RDD	5. LOCATION	6. SIM <input type="checkbox"/> SIM <input type="checkbox"/> NON-SIM	7. ISSUE DATE	A. REQD QTY	B. REQD NO
8. NOUN NAME OR REF SYM FUSE		9. FPR <input type="checkbox"/>	10. APL/AEL/CID 01689426		11. INV QTY	12. NIS <input type="checkbox"/> N/C <input type="checkbox"/>	C. OBL AMT	D. POSTED
JOB CONTROL NUMBER					17. EQUIP COSAL SUPPLY'D YES <input type="checkbox"/> NO <input type="checkbox"/>		E. URG <input type="checkbox"/> MART <input type="checkbox"/>	S/R (REQD O/S)
13. UIC	14. WC	15. JSN	16. EIC		17. EQUIP COSAL SUPPLY'D		PROJ	OPTAR LOG
18. SC					19. COG		20. MCC	
21. FSC					22. NIIN		23. SMC	
24. U/I					25. QUANTITY		26. UNIT PRICE	
27. EXTENDED PRICE					28. FUND			
29. REMARKS					30. APPROVED BY			
					31. RECEIVED BY			
11	12	13	14	15	16	17	18	19
20	21	22	23	24	25	26	27	28
29	30	31	32	33	34	35	36	37
38	39	40	41	42	43	44	45	46
47	48	49	50	51	52	53	54	55
56	57	58	59	60	61	62	63	64
65	66	67	68	69	70	71	72	73
74	75	76	77	78	79	80	81	82
83	84	85	86	87	88	89	90	91
92	93	94	95	96	97	98	99	00
DOC IDENT	RTG IDENT	M & S	SVC	UIC	JUL DATE	SERIAL	DEPT	SUPPL ADDRESS
DOCUMENT NUMBER				FUND				
DIST				PROJ				
PRI				ADD				
ADV								

Figure 3-5.—Information supplied by the division representative on NAVSUP Form 1250 or 1250-1.

Requisitioning and Issue Procedures (MILSTRIP) requisitioning document for procuring material or services from a submarine tender, submarine base, a combat store ship (AFS), a naval supply center, or the Naval Publications and Forms Center (NPFC) Philadelphia. Submarine tenders and bases use the NAVSUP Form 1250 as an invoice for material supplied to supported units of the submarine forces.

NAVSUP Forms 1250 and 1250-1 were developed to meet two needs: (1) to improve inventory control procedures, and (2) to report consumption under the Maintenance Data System (MDS). Be sure to follow the general instructions given below whenever you prepare a NAVSUP Form 1250 or 1250-1:

1. Use a ball-point pen or typewriter.

2. Annotate each entry in the proper data block.
3. To avoid confusion between the numeral 0 and the letter O, use the communication symbol for zeros, which is 0 with a slash through it from upper right to lower left.

Because of the changing nature of the various forms mentioned in the text that follows, we have not attempted to define the proper procedures for falling them out.

A division supply petty officer determines the material a division requires, then prepares the NAVSUP Form 1250/1250-1. Figure 3-5 shows the NAVSUP 1250/1250-1 with the data that must be provided by the

SHIPPING CONTAINER TALLY		1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50																																							
REQUISITION AND INVOICE/SHIPPING DOCUMENT		1. FROM R52192 USS JOHN PAUL JONES (DDG-32)										2. DATE MATERIAL REQUIRED 30 OCT 1985										3. REQUISITION DATE 15 OCT 1985										4. DISPOSITION NUMBER R52192-5288-									
5. TO M00244 NSC SAN DIEGO, CA		6. AUTHORITY OF PURCHASE										7. DATE SHIPPED										8. VOUCHER NUMBER AND DATE										9. SIGNATURE L. GARNER, LT. SC. USN									
10. SUPPLY TO - NAME AND ADDRESS SUPPLY OFFICER USS JOHN PAUL JONES (DDG-32) PIER 2, NAVSTA, SAN DIEGO, CA		11. MODE OF SHIPMENT										12. BILL OF LADING NUMBER										13. AIR PORTER'S REGISTRATION OR FEEL REFERENCE NO.																			
14. APPROPRIATION AND OVERHEAD FUND CODE NU		15. G/L		16. G/L CONT. NO.		17. G/L		18. AUTHORITY ACTIVITY		19. TYPE		20. PROPERTY ACTIVITY		21. COM. CODE		22. COST CODE		23. AMOUNT																							
24. ITEM NO.		25. NCS		26. NATIONAL STOCK NUMBER, DESCRIPTION, AND CODING OF MATERIAL AND/OR SERVICES		27. UNIT OF ISSUE		28. QUANTITY REQUESTED		29. SUPPLY ACTION		30. TYPE		31. COM. TARIFF		32. UNIT PRICE		33. TOTAL COST																							
34. SERVICES AND MATERIALS FOR REPAIR OF:		35. 3001		MARCHANT CALCULATORS, Ser. Nos. 441067, 441255		36. JOB		37. 1																																	
38. 3002				FRIDEN ADDING MACHINE, Ser. No. 56432		39. JOB		40. 1																																	
41. 3003				IBM ELECTRIC TYPEWRITERS, Ser. Nos. 14-667421, 15-667441		42. JOB		43. 1																																	
44. 3004				REMINGTON ELECTRIC TYPEWRITER, Ser. No. 14-336601		45. JOB		46. 1																																	
47. 14. PREPARATION VIA NAME OF SUPPLY SOURCE/DATE TO		48. 15. SPECIAL INSTRUCTIONS		49. 16. CONTINUED RECEIVED EXCEPT AS NOTED		50. 17. DATE		51. 18. BY		52. 19. SHEET TOTAL		53. 20. CONTINUED RECEIVED EXCEPT AS NOTED		54. 21. DATE		55. 22. BY		56. 23. GRAND TOTAL																							
57. 24. CHECKED BY		58. 25. TYPE		59. 26. DESCRIPTION		60. 27. TOTAL		61. 28. RECAL		62. 29. RECEIVED		63. 30. DATE		64. 31. BY		65. 32. SHEET TOTAL		66. 33. GRAND TOTAL																							
67. 34. CHECKED BY		68. 35. TYPE		69. 36. DESCRIPTION		70. 37. TOTAL		71. 38. RECAL		72. 39. RECEIVED		73. 40. DATE		74. 41. BY		75. 42. SHEET TOTAL		76. 43. GRAND TOTAL																							
77. 44. CHECKED BY		78. 45. TYPE		79. 46. DESCRIPTION		80. 47. TOTAL		81. 48. RECAL		82. 49. RECEIVED		83. 50. DATE		84. 51. BY		85. 52. SHEET TOTAL		86. 53. GRAND TOTAL																							
87. 54. CHECKED BY		88. 55. TYPE		89. 56. DESCRIPTION		90. 57. TOTAL		91. 58. RECAL		92. 59. RECEIVED		93. 60. DATE		94. 61. BY		95. 62. SHEET TOTAL		96. 63. GRAND TOTAL																							
97. 64. CHECKED BY		98. 65. TYPE		99. 66. DESCRIPTION		100. 67. TOTAL		101. 68. RECAL		102. 69. RECEIVED		103. 70. DATE		104. 71. BY		105. 72. SHEET TOTAL		106. 73. GRAND TOTAL																							
107. 74. CHECKED BY		108. 75. TYPE		109. 76. DESCRIPTION		110. 77. TOTAL		111. 78. RECAL		112. 79. RECEIVED		113. 80. DATE		114. 81. BY		115. 82. SHEET TOTAL		116. 83. GRAND TOTAL																							
117. 84. CHECKED BY		118. 85. TYPE		119. 86. DESCRIPTION		120. 87. TOTAL		121. 88. RECAL		122. 89. RECEIVED		123. 90. DATE		124. 91. BY		125. 92. SHEET TOTAL		126. 93. GRAND TOTAL																							
127. 94. CHECKED BY		128. 95. TYPE		129. 96. DESCRIPTION		130. 97. TOTAL		131. 98. RECAL		132. 99. RECEIVED		133. 100. DATE		134. 101. BY		135. 102. SHEET TOTAL		136. 103. GRAND TOTAL																							
137. 104. CHECKED BY		138. 105. TYPE		139. 106. DESCRIPTION		140. 107. TOTAL		141. 108. RECAL		142. 109. RECEIVED		143. 110. DATE		144. 111. BY		145. 112. SHEET TOTAL		146. 113. GRAND TOTAL																							
147. 114. CHECKED BY		148. 115. TYPE		149. 116. DESCRIPTION		150. 117. TOTAL		151. 118. RECAL		152. 119. RECEIVED		153. 120. DATE		154. 121. BY		155. 122. SHEET TOTAL		156. 123. GRAND TOTAL																							
157. 124. CHECKED BY		158. 125. TYPE		159. 126. DESCRIPTION		160. 127. TOTAL		161. 128. RECAL		162. 129. RECEIVED		163. 130. DATE		164. 131. BY		165. 132. SHEET TOTAL		166. 133. GRAND TOTAL																							
167. 134. CHECKED BY		168. 135. TYPE		169. 136. DESCRIPTION		170. 137. TOTAL		171. 138. RECAL		172. 139. RECEIVED		173. 140. DATE		174. 141. BY		175. 142. SHEET TOTAL		176. 143. GRAND TOTAL																							
177. 144. CHECKED BY		178. 145. TYPE		179. 146. DESCRIPTION		180. 147. TOTAL		181. 148. RECAL		182. 149. RECEIVED		183. 150. DATE		184. 151. BY		185. 152. SHEET TOTAL		186. 153. GRAND TOTAL																							
187. 154. CHECKED BY		188. 155. TYPE		189. 156. DESCRIPTION		190. 157. TOTAL		191. 158. RECAL		192. 159. RECEIVED		193. 160. DATE		194. 161. BY		195. 162. SHEET TOTAL		196. 163. GRAND TOTAL																							
197. 164. CHECKED BY		198. 165. TYPE		199. 166. DESCRIPTION		200. 167. TOTAL		201. 168. RECAL		202. 169. RECEIVED		203. 170. DATE		204. 171. BY		205. 172. SHEET TOTAL		206. 173. GRAND TOTAL																							
207. 174. CHECKED BY		208. 175. TYPE		209. 176. DESCRIPTION		210. 177. TOTAL		211. 178. RECAL		212. 179. RECEIVED		213. 180. DATE		214. 181. BY		215. 182. SHEET TOTAL		216. 183. GRAND TOTAL																							
217. 184. CHECKED BY		218. 185. TYPE		219. 186. DESCRIPTION		220. 187. TOTAL		221. 188. RECAL		222. 189. RECEIVED		223. 190. DATE		224. 191. BY		225. 192. SHEET TOTAL		226. 193. GRAND TOTAL																							
227. 194. CHECKED BY		228. 195. TYPE		229. 196. DESCRIPTION		230. 197. TOTAL		231. 198. RECAL		232. 199. RECEIVED		233. 200. DATE		234. 201. BY		235. 202. SHEET TOTAL		236. 203. GRAND TOTAL																							
237. 204. CHECKED BY		238. 205. TYPE		239. 206. DESCRIPTION		240. 207. TOTAL		241. 208. RECAL		242. 209. RECEIVED		243. 210. DATE		244. 211. BY		245. 212. SHEET TOTAL		246. 213. GRAND TOTAL																							
247. 214. CHECKED BY		248. 215. TYPE		249. 216. DESCRIPTION		250. 217. TOTAL		251. 218. RECAL		252. 219. RECEIVED		253. 220. DATE		254. 221. BY		255. 222. SHEET TOTAL		256. 223. GRAND TOTAL																							
257. 224. CHECKED BY		258. 225. TYPE		259. 226. DESCRIPTION		260. 227. TOTAL		261. 228. RECAL		262. 229. RECEIVED		263. 230. DATE		264. 231. BY		265. 232. SHEET TOTAL		266. 233. GRAND TOTAL																							
267. 234. CHECKED BY		268. 235. TYPE		269. 236. DESCRIPTION		270. 237. TOTAL		271. 238. RECAL		272. 239. RECEIVED		273. 240. DATE		274. 241. BY		275. 242. SHEET TOTAL		276. 243. GRAND TOTAL																							
277. 244. CHECKED BY		278. 245. TYPE		279. 246. DESCRIPTION		280. 247. TOTAL		281. 248. RECAL		282. 249. RECEIVED		283. 250. DATE		284. 251. BY		285. 252. SHEET TOTAL		286. 253. GRAND TOTAL																							
287. 254. CHECKED BY		288. 255. TYPE		289. 256. DESCRIPTION		290. 257. TOTAL		291. 258. RECAL		292. 259. RECEIVED		293. 260. DATE		294. 261. BY		295. 262. SHEET TOTAL		296. 263. GRAND TOTAL																							
297. 264. CHECKED BY		298. 265. TYPE		299. 266. DESCRIPTION		300. 267. TOTAL		301. 268. RECAL		302. 269. RECEIVED		303. 270. DATE		304. 271. BY		305. 272. SHEET TOTAL		306. 273. GRAND TOTAL																							
307. 274. CHECKED BY		308. 275. TYPE		309. 276. DESCRIPTION		310. 277. TOTAL		311. 278. RECAL		312. 279. RECEIVED		313. 280. DATE		314. 281. BY		315. 282. SHEET TOTAL		316. 283. GRAND TOTAL																							
317. 284. CHECKED BY		318. 285. TYPE		319. 286. DESCRIPTION		320. 287. TOTAL		321. 288. RECAL		322. 289. RECEIVED		323. 290. DATE		324. 291. BY		325. 292. SHEET TOTAL		326. 293. GRAND TOTAL																							
327. 294. CHECKED BY		328. 295. TYPE		329. 296. DESCRIPTION		330. 297. TOTAL		331. 298. RECAL		332. 299. RECEIVED		333. 300. DATE		334. 301. BY		335. 302. SHEET TOTAL		336. 303. GRAND TOTAL																							
337. 304. CHECKED BY		338. 305. TYPE		339. 306. DESCRIPTION		340. 307. TOTAL		341. 308. RECAL		342. 309. RECEIVED		343. 310. DATE		344. 311. BY		345. 312. SHEET TOTAL		346. 313. GRAND TOTAL																							
347. 314. CHECKED BY		348. 315. TYPE		349. 316. DESCRIPTION		350. 317. TOTAL		351. 318. RECAL		352. 319. RECEIVED		353. 320. DATE		354. 321. BY		355. 322. SHEET TOTAL		356. 323. GRAND TOTAL																							
357. 324. CHECKED BY		358. 325. TYPE		359. 326. DESCRIPTION		360. 327. TOTAL		361. 328. RECAL		362. 329. RECEIVED		363. 330. DATE		364. 331. BY		365. 332. SHEET TOTAL		366. 333. GRAND TOTAL																							
367. 334. CHECKED BY		368. 335. TYPE		369. 336. DESCRIPTION		370. 337. TOTAL		371. 338. RECAL		372. 339. RECEIVED		373. 340. DATE		374. 341. BY		375. 342. SHEET TOTAL		376. 343. GRAND TOTAL																							
377. 344. CHECKED BY		378. 345. TYPE		379. 346. DESCRIPTION		380. 347. TOTAL		381. 348. RECAL		382. 349. RECEIVED		383. 350. DATE		384. 351. BY		385. 352. SHEET TOTAL		386. 353. GRAND TOTAL																							
387. 354. CHECKED BY		388. 355. TYPE		389. 356. DESCRIPTION		390. 357. TOTAL		391. 358. RECAL		392. 359. RECEIVED		393. 360. DATE		394. 361. BY		395. 362. SHEET TOTAL		396. 363. GRAND TOTAL																							
397. 364. CHECKED BY		398. 365. TYPE		399. 366. DESCRIPTION		400. 367. TOTAL		401. 368. RECAL		402. 369. RECEIVED		403. 370. DATE		404. 371. BY		405. 372. SHEET TOTAL		406. 373. GRAND TOTAL																							
407. 374. CHECKED BY		408. 375. TYPE		409. 376. DESCRIPTION		410. 377. TOTAL		411. 378. RECAL		412. 379. RECEIVED		413. 380. DATE		414. 381. BY		415. 382. SHEET TOTAL		416. 383. GRAND TOTAL																							
417. 384. CHECKED BY		418. 385. TYPE		419. 386. DESCRIPTION		420. 387. TOTAL		421. 388. RECAL		422. 389. RECEIVED		423. 390. DATE		424. 391. BY		425. 392. SHEET TOTAL		426. 393. GRAND TOTAL																							
427. 394. CHECKED BY		428. 395. TYPE		429. 396. DESCRIPTION		430. 397. TOTAL		431. 398. RECAL		432. 399. RECEIVED		433. 400. DATE		434. 401. BY		435. 402. SHEET TOTAL		436. 403. GRAND TOTAL																							
437. 404. CHECKED BY		438. 405. TYPE		439. 406. DESCRIPTION		440. 407. TOTAL		441. 408. RECAL		442. 409. RECEIVED		443. 410. DATE		444. 411. BY		445. 412. SHEET TOTAL		446. 413. GRAND TOTAL																							
447. 414. CHECKED BY		448. 415. TYPE		449. 416. DESCRIPTION		450. 417. TOTAL		451. 418. RECAL		452. 419. RECEIVED		453. 420. DATE		454. 421. BY		455. 422. SHEET TOTAL		456. 423. GRAND TOTAL																							
457. 424. CHECKED BY		458. 425. TYPE		459. 426. DESCRIPTION		460. 427. TOTAL		461. 428. RECAL		462. 429. RECEIVED		463. 430. DATE		464. 431. BY		465. 432. SHEET TOTAL		466. 433. GRAND TOTAL																							
467. 434. CHECKED BY		468. 435. TYPE		469. 436. DESCRIPTION		470. 437. TOTAL		471. 438. RECAL		472. 439. RECEIVED		473. 440. DATE		474. 441. BY		475. 442. SHEET TOTAL		476. 443. GRAND TOTAL																							
477. 444. CHECKED BY		478. 445. TYPE		479. 446. DESCRIPTION		480. 447. TOTAL		481. 448. RECAL		482. 449. RECEIVED		483. 450. DATE		484. 451. BY		485. 452. SHEET TOTAL		486. 453. GRAND TOTAL																							
487. 454. CHECKED BY		488. 455. TYPE		489. 456. DESCRIPTION		490. 457. TOTAL		491. 458. RECAL		492. 459. RECEIVED		493. 460. DATE		494. 461. BY		495. 462. SHEET TOTAL		496. 463. GRAND TOTAL																							
497. 464. CHECKED BY		498. 465. TYPE		499. 466. DESCRIPTION		500. 467. TOTAL		501. 468. RECAL		502. 469. RECEIVED		503. 470. DATE		504. 471. BY		505. 472. SHEET TOTAL		506. 473. GRAND TOTAL																							
507. 474. CHECKED BY		508. 475. TYPE		509. 476. DESCRIPTION		510. 477. TOTAL		511. 478. RECAL		512. 479. RECEIVED		513. 480. DATE		514. 481. BY		515. 482. SHEET TOTAL		516. 483. GRAND TOTAL																							
517. 484. CHECKED BY		518. 485. TYPE		519. 486. DESCRIPTION		520. 487. TOTAL		521. 488. RECAL		522. 489. RECEIVED		523. 490. DATE		524. 491. BY		525. 492. SHEET TOTAL		526. 493. GRAND TOTAL																							
527. 494. CHECKED BY		528. 495. TYPE		529. 496. DESCRIPTION		530. 497. TOTAL		531. 498. RECAL		532. 499. RECEIVED		533. 500. DATE		534. 501. BY		535. 502. SHEET TOTAL		536. 503. GRAND TOTAL																							
537. 504. CHECKED BY		538. 505. TYPE		539. 506. DESCRIPTION		540. 507. TOTAL		541. 508. RECAL		542. 509. RECEIVED		543. 510. DATE		544. 511. BY		545. 512. SHEET TOTAL		546. 513. GRAND TOTAL																							
547. 514. CHECKED BY		548. 515. TYPE		549. 516. DESCRIPTION		550. 517. TOTAL		551. 518. RECAL		552. 519. RECEIVED		553. 520. DATE		554. 521. BY		555. 522. SHEET TOTAL		556. 523. GRAND TOTAL																							
557. 524. CHECKED BY		558. 525. TYPE		559. 526. DESCRIPTION		560. 527. TOTAL		561. 528. RECAL		562. 529. RECEIVED		563. 530. DATE		564. 531. BY		565. 532. SHEET TOTAL		566. 533. GRAND TOTAL																							
567. 534. CHECKED BY		568. 535. TYPE		569. 536. DESCRIPTION		570. 537. TOTAL		571. 538. RECAL		572. 539. RECEIVED		573. 540. DATE		574. 541. BY		575. 542. SHEET TOTAL		576. 543. GRAND TOTAL																							
577. 544. CHECKED BY		578. 545. TYPE		579. 546. DESCRIPTION		580. 547. TOTAL		581. 548. RECAL		582. 549. RECEIVED		583. 550. DATE		584. 551. BY		585. 552. SHEET TOTAL		586. 553. GRAND TOTAL																							
587																																									

SERVMART SHOPPING LIST (4400) NAVSUP FORM 1314 (REV. 10-80)				MATERIAL CATEGORY CONSUMABLES		PAGE OF 1 1		JULIAN DATE 2181	
SHIP/ACTIVITY USS JOHN PAUL JONES (DDG-32)				REQUISITION NO. R52192-4271-3369				FUND CODE NC	
ITEM NO.	COG SYM AND NSN OR NIIN ***	DESCRIPTION	U/I	QTY	UNIT PRICE	EXTENSION	REQUIRING DEPT.		
1	00-222-3525	BOOK, RECORD	EA	6	1.50	9.00	OE01		
2	00-281-3685	PAPER, CARBON, 8 x 11	BX	2	2.00	4.00	OE01		
3	00-290-0598	PAPER, BOND, 8 x 13	RM	1	1.97	1.97	OE01		
4	00-370-0606	ERASER	EA	5	.05	.25	OE01		
5									
6									
7									
8									

N00244 NSC SAN DIEGO SERVMART				R52192 USS JOHN PAUL JONES (DDG-32)			
AOA				REMARKS			
R 52192 2181 3369				TOTAL COST LIMITATION \$16.75			
NC				LT I. L. GARNER, SC, USN			
NAME (Signature and Rate or Rank of Authorized Shopper)				TOTAL 15.22			
				PLUS 10% FOR PRICE VARIATIONS			
				GRAND TOTAL (May not exceed dollar limit on DD Form 1348)			

I CERTIFY THAT THE PURCHASE OF MATERIALS LISTED HEREON IS NECESSARY FOR THE OFFICIAL BUSINESS OF THE U.S. NAVY. REQUEST APPROVED BY:
 TYPED NAME AND SIGNATURE _____ (Rank and Title)

Figure 3-8.—SERVMART shopping list and covering DD Form 1348.

variations. Figure 3-8 shows a sample shopping list and an MVO (money-value-only) requisition.

At some SERVMARTs “credit cards” are used. These cards are issued to activities frequently using the SERVMART and satisfy the same requirement as the DD Form 1348, thereby eliminating the need for this MVO requisition.

MASTER REPAIRABLE ITEM LIST (MRIL)

The MRIL is a consolidation of many individual repair lists that have been developed to make it easier to identify and return mandatory turn-in items. The MRIL is published every month. The MRIL shown in figure 3-9 is divided into two basic parts.

- Part 1—Listing of Items
- Part 2—Shipping Addresses

Materials assigned cognizance codes E, R, and V are not included in the MRIL. Repairable items in these cognizance codes are listed in the Master Repair List of Navy Aeronautical Materials.

MANDATORY TURN-IN ITEMS

You should already be familiar with the basic description of the mandatory turn-in repairable program from completing *Military Requirements for Petty Officer Third Class*, NAVEDTRA 12044. The knowledge you have should enable you to answer the following questions concerning the turn-in system:

LONG SUPPLY IND.	SCHED REMOVAL COMP CARD CODE	COG SYMBOL/ MAT'L CONTROL CODE	NATIONAL ITEM IDENTIFICATION NUMBER/NAVY ITEM CONTROL NUMBER/ AIRCRAFT ENGINE MODEL NUMBER	SPEC MAT'L IDENT CODE	REPAIR MAINT. CODE/ RECOVER- ABILITY CODE	SECUR- ITY CLASS	SHIP- PING CODE	MOVEMENT PRIORITY DESIG- NATOR	NOTES		
L S I	S R C	C O G	M C C	NIIN/NICN/MODEL	SMIC	R M C	R C	S E C	SHPG CODE	M P D	NOTES
	7H	H		6675-00-714-3642		D	D	U	N00189 N00228	13	USE CONTAINER 00-789-2993
	1H	D		6625-00-714-3876		O	G	U	WW		
	7Z	H		6625-00-714-3992	TE	O	D	U	N00189 N68276	06	BLUESTRIPE
	7G	H		6625-00-714-4223		F	D	U	N00189 N68276	06	BLUESTRIPE
	1R	D		1650-00-714-4365	EU	G	G	U	WW		
	2R	M		1650-00-714-4475	LC	G	D	U	N00146	13	RMN IN PLACE

PART I—LISTING OF ITEMS

SHIPPING CODE	SHIPPING INSTRUCTIONS	UIC/ FSCM
N00189	IRAM NAVAL SUPPLY CENTER NORFOLK, VA 23511 ATTENTION OF BLDG SP-237	

PART 2—SHIPPING ADDRESS

Figure 3-9.—The format of the master repairable item list (MIUL), Parts 1 and 2.

- Why should the item(s) be turned in?
- Is there special material content?
- Is there hazardous material content?
- Is the item a depot level repairable?

Mandatory turn-in repairable can be identified by the material control codes H, E, X, G, or O located in the third position of the item's NSN.

For the program to work as intended, you must return repairable items promptly and in repairable condition. At the time you present your request for a mandatory turn-in item, supply must inform you that the removed part must be returned. Therefore, when you receive the replacement you are required to do the following:

- Remove the defective item without damaging it beyond its already defective condition.
- Provide adequate protection to the item so it will not be further damaged before it is turned in to supply. The most effective way, if at all possible, is to place the defective part in the same container in which you received the replacement part.
- Resist the temptation to cannibalize the item for components that you might possibly use sometime in the future.

- Return the defective item to supply as soon as practical.

Sometimes the needed replacement item is not in the storeroom; supply must obtain it. Normally, you should still turn in the failed item, even though you have not received the replacement item. This way the failed item can enter the repair cycle and be available for reissue soon.

NOTE: The exception to this requirement is when equipment can still be used under limited operation with the failed part in place until the replacement is received. If this is the case, you **MUST** obtain a "Remain in Place" certification.

You can find information about the packaging for protection in the technical manual of the equipment involved. You can also obtain additional information from the supply department at your command. They may suggest that you not package the turn-in item because of any inspections required before shipment or they may say their shipping personnel have the necessary materials to package the item properly. There are two references that you should know about if supply department personnel are not readily available to assist you. They are the *Afloat Supply Procedures*, NAVSUP Publication 485; and *Supply Ashore*, NAVSUP Publication 1.

You will be responsible for learning as much as possible about the supply system by using the training aids available. Most of the ETs in the fleet don't fully understand the supply system and how it works. Most obtain the desired part by any method handy at the time. You **MUST** become familiar with the system to receive the best results!

FEDERAL CLASSIFICATION SYSTEM

The Federal Classification System requires that only one identification number be assigned for each item of material. The Federal Classification System includes naming, describing, classifying, and numbering all items carried under centralized inventory control, as well as the publication of catalogs and related identification data. The system is managed by the Defense Logistics Agency (DLA).

MATERIAL CLASSIFICATION

The Defense Supply System contains over 4 million different items. The Navy uses and has interest in over 1.5 million of these items. The Federal Supply Classification (FSC) system is a tool to permit the classification of all items of supply used by the federal government. It provides a common language so one service or agency can use available materials held by another.

The FSC is a commodity classification. Groups and classes have been established for the numerous commodities with emphasis on the items in the supply systems of the military departments.

Examples of commodity groups and class are as follows:

58-Communications Equipment (group)

5815-Teletype and Facsimile equipment (class)

5831-Intercoms and Public Address Equipment, Airborne

59-Electrical and Electronic Equipment Components

5905-Resistors

5910-Capacitors

5920-Fuses and Lightning Arresters

61-Electric Wire, Power, and Distribution Equipment

6110-Electrical Control Equipment

6135-Batteries, Primary

In the FSC system, most material used by the Navy is assigned a national stock number (NSN). The national stock number is a 13-digit number that includes a four-digit FSC number and a nine-digit National Item Identification Number (NIIN). For example, in the NSN 6135-00-385-7281, the FSC number is 6135 and the NIIN is 00-385-7281.

The following NSN, 5920-00-248-5708, preceded by a cognizance material control code, and followed by a special material identification code (SMIC), shows all the elements with which you should be familiar:

	<u>N9 H 5920 00 248-5708-VN</u>
Cognizance Symbol (stores account)	<u>N9</u>
Material Control Code	H
Federal Supply Group	<u>59</u>
Federal Supply Classification	<u>20</u>
National Codification Bureau (NCB) Code	<u>00</u>
National Item Identification Number (NIIN)	<u>00-248-5708</u>
Special Material Identification Code (SMIC)	<u>VN</u>

Separated, this NSN, cognizance material control code, and SMIC will tell you the following information about the item:

9N = Navy-owned stocks of defense electronic material

H = depot level repairable

59 = electrical and electronic equipment components

20 = fuses and lightning arresters

00= FSNS assigned before 31 March 1975

00-284-5708 = the individual item identification number (NIIN)

VN = electrostatic discharge sensitive material

SEARCHING FOR THE ELUSIVE NSN

Various publications are available to help you find the stock numbers of the parts you want. Afloat, there are four basic publications.




SWITCH, TOGGLE		
<p>① Circuitry w/toggle position A, CTR, B - on, none, on. 220VAC at 6 AMP, 250VDC at 0.5 AMP, max. voltage rating. 2 screw terminals. Fully inclosed, driptight. Sealed toggle. Bushing mtd. Military Standard MS35058-23.</p> <p>00-655-1515 1/4"-32NS Thd</p>	 <p>①</p>	 <p>②</p>
<p>② Circuitry w/toggle position A, CTR, B - on, none, on. 250VAC, 30VDC at 5 AMP, max. voltage rating. 3 solder tab terminals. Fully inclosed Bushing mtd. Micro Switch Div. of Honeywell Inc., #6AT6.</p> <p>00-519-6383 1/4"-32NS Thd</p>	<p>1 pole, double throw, one position momentary, contact arrangement.</p> <p>⑤ Circuitry w/toggle position A, CTR, B - on, none, on momentary. 115VAC at 10 AMP, 28VDC at 20 AMP max voltage rating. 2 screw terminals. Fully inclosed, driptight. Sealed toggle. Bushing mtd. Military Standard MS35058-26.</p> <p>00-655-1517 1/4"-32NS Thd</p>	 <p>④</p>
<p>② Circuitry w/toggle position A, CTR, B - on, none, on. 250VAC at 5 AMP, 30VDC at 4 AMP, max. voltage rating. 3 solder tab terminals. Fully inclosed. Bushing mtd. Micro Switch Div. of Honeywell Inc. #6AT102.</p> <p>00-556-9217 1/4"-40NS Thd</p>	<p>⑤ Circuitry w/toggle position A, CTR, B - on momentary, off, on momentary. 115VAC at 10 AMP, 28VDC at 20 AMP, max. voltage rating. 3 screw terminals. Fully inclosed. Sealed toggle. Bushing mtd. Military Standard MS35058-27.</p> <p>00-655-1518 1/4"-32NS Thd</p>	<p>1 pole, double throw, one position momentary, two positions maintained, contact arrangement.</p> <p>④ Circuitry w/toggle position A, CTR, B - on, off, on momentary. 28VDC at 5 AMP, max. voltage rating. 3 solder tab terminals. Fully inclosed. Bushing mtd. The Bendix Corp., #C202-5050-0706.</p> <p>00-944-5124 1/4"-40NS Thd</p>
<p>③ Circuitry w/toggle position A, CTR, B - on, none, on. 220VAC, 250VDC at 2 AMP, max. voltage rating. 2 solder tab terminals. Fully inclosed, submersible. Bushing mtd, designed so that the direction of movement of the switch mechanism is the same as that of the lever. Military Standard MS25098-23.</p> <p>00-655-1923 1/4"-32NS Thd</p>	<p>④ Circuitry w/toggle position A, CTR, B - on momentary, off, on momentary. 115VAC, 28VDC at 15 AMP, max. voltage rating. 3 screw terminals. Fully inclosed, vaportight. Sealed toggle. Bushing mtd. Military Standard MS24523-27.</p> <p>00-683-1633 1/4"-32NS Thd</p>	<p>⑥ Circuitry w/toggle position A, CTR, B - on, off, on momentary. w/locking in 'A' position. 115VAC, 28VDC at 15 AMP, max. voltage rating. 3 screw terminals. Fully inclosed, submersible. Sealed toggle. Bushing mtd. Military Standard MS24658-31 F.</p> <p>00-914-6446 1/4"-32NS Thd</p>

Figure 3-10.-Sample format of an afloat shopping guide (ASG).

1. *Coordinated Shipboard Allowance List (COSAL)*
2. *Afloat Shopping Guide (ASG)*
3. *Management List-Navy (ML-N)*
4. *Navy Consolidated Master Cross-Reference List (C-MCRL)*

Also, many catalogs are published to help you translate your needs to stock numbers. (We will discuss some of these catalogs later in this chapter.) In many cases, the problems of identifying the stock number of an item are much more difficult than those normally encountered by civilian businesses. This complexity has led to the publication of more and more catalogs. As of this writing, a complete set of Navy and federal supply catalogs would occupy some 76 feet of shelf space. Maintaining all these catalogs aboard ship would be difficult, if not impossible. The four basic publications contain enough information to help you identify most of the items you will require.

Afloat Shopping Guide (ASG)

The ASG (NAVSUP P-4400), (explained in *Military Requirements for Petty Officer Third Class*), is designed to help fleet personnel in identifying the NSN items that are most frequently requested by ships. The ASG is published every 4 years and updated annually; however, you should still use the ML-N for verification of current stock numbers, unit of issue, unit prices, and the like. The format of the ASG is shown in figure 3-10 for review purposes.

General Services Administration (GSA) Catalog

The GSA catalogs nonmilitary items in general use by both military and civil agencies of the United States. The GSA Catalog provides a handy reference in identifying consumable-type material and is similar to the ASG. The material in the GSA Catalog is listed in the ML-N as cognizance symbol 9Q and is carried in stock at stock points under Navy ownership for issue.

	Code		Code
Nashua Mfg. Co., Nashua, N.H.	42308	National Bearing Metal Corp., St. Louis, Mo. (82473)	
Nashua Package Sealing Co., Inc., Nashua, N.H. (42318)		Acquired by American Brake Shoes Co.	
Now Nashua Corp.		National Beryllia Corp., Haskell, N.J.	6327
Nashville Bridge Co., Nashville, Tenn.	76611	National Billiard Chalk Co., Chicago, Ill.	42423
Nashville Workshop for the Blind, Nashville, Tenn.	85813	National Billiard Mfg. Co., Cincinnati, Ohio.	42426
Nason Co., Detroit, Mich.	85814	National Bird Control Laboratories, Skokie, Ill.	03827
Nason, R. N., and Co., San Francisco, Calif.	76612	National Biscuit Co., New York, N.Y.	88707
Nassau Boat Basin, Inc., Freeport, N.Y.	42319	National Blank Book Co., Holyoke, Mass.	74103
Nassau Laboratories, Hackensack, N.J.	88483	National Blow Pipe and Mfg. Co., Ltd., New Orleans, La.	42424
Nassau Machine Products Co., East Detroit, Mich.	04705	National Body Mfg. Co., Knightstown, Ind.	42427
Nassau Research and Development Associates, Inc., Mineola, N.Y. (99898)		National Boiler Washing Systems, Chicago, Ill.	82474
Now Narda Corp.		National Box and Lumber Co., Newark, N.J.	85060
Nassau Screw Machine Products Corp., Inwood, N.Y.	98093	National Brake Co., Inc., New York, N.Y.	76622
Nassau Smelting and Refining Co., Inc., Tottenville, N.Y.	85055	National Brake and Electric Co., New York, N.Y.	42429
Nassau Sponge Co., Chicago, Ill.	85056	National Brass Co., Grand Rapids, Mich.	76623
Nassovia G.m.b.H. Machine Tool Factory, Langen, Germany.	98223	National Brass Products, Los Angeles, Calif.	91963
American Distributor—Hirschman, Manhasset, N.Y.		National Brass Works, Inc., Los Angeles, Calif.	00892
Nast-D Machinery Co., Philadelphia, Pa.	15800	National Brief Case Mfg. Co., Inc., Chicago, Ill.	91355
Natco, Inc., Chicago, Ill.	82817	National Broach and Machine Co., Detroit, Mich.	42432
Nathan Aircraft Devices, Inc., New York, N.Y. (76615)		National Broadcasting Co., Inc., New York, N.Y.	42442
Now Nathan Mfg. Co.		National Bronze and Aluminum Casting Co. Cleveland, Ohio.	87960
Nathan Mfg. Co., New York, N.Y.	42323	Detroit, Mich.	87628
Nathaniel Baldwin Co., Denver, Colo.	95567	National Brush Co., Aurora, Ill.	85061
National Academic Cap and Gown Co., Philadel-	85057	National Bundle Tyer Co., Blissfield, Mich.	42447
		National Bureau of Standards.	
		See U.S. Government Civil Establishments, Commerce Department.	
		National Business Systems, Inc., Washington, D.C.	03036
		National Business Systems of Baltimore, Balti-	90395

A

Code	Name	Code	Name	Code	Name
41933	Mount Vernon Car Mfg. Division of Pressed Steel Car Co., Mount Vernon, Ill.	42185	Muskegon Boiler Works, Muskegon, Mich.	42492	National Church Goods Supply Co., Philadelphia, Pa.
41935	Movie Mite Corp., Kansas City, Mo.	42190	Muter Co., Chicago, Ill.	42498	National Co., Inc., Malden, Mass.
41938	Moviola Co., Hollywood, Calif.	42195	Mutual Furniture Co., Miamisburg, Ohio.	42508	National Conveyors Co., Inc., New York, N.Y.
41945	Mowat, John, Refrigerators, San Francisco, Calif.	42204	Mutschler Bros. Co., Nappanee, Ind.	42527	National Cylinder Gas Co., Chicago, Ill.
41946	Moyer, J., Bird Co., Inc., Philadelphia, Pa.	42213	Muzak Corp., New York, N.Y.	42537	National Desk Co., Inc., Herkimer, N.Y.
41947	Mueller Brass Co., Port Huron, Mich.	42223	Myers, F. E., and Bro. Co., Ashland, Ohio.	42540	National Electric Instrument Co., Inc., Elmhurst, N.Y.
41948	Muehlmann, A., Co., Hamilton, Ohio.	42242	Myrtle Desk Co., High Point, N.C.	42540	National Electric Instrument Division of Engelhard Industries, Inc., Elmhurst, N.Y.
41949	Mueller Furniture Co., Inc., Grand Rapids, Mich.	42243	Myrtle Shipyard, Inc., West Mystic, Conn.	42542	National Electrical Machine Shops, Inc., Silver Spring, Md.
41950	Mueller Co., Decatur, Ill.	42247	Nabors, W. C., Co., Mansfield, La.	42542	Nema Clarke, Inc., Silver Spring, Md.
41951	Mueller Climatrol Division of Worthington Corp., Milwaukee, Wis.	42261	Nahon Co., The, New York, N.Y.	42543	National Electric Screen Co., Chicago, Ill.
41951	Mueller, L. J., Furnace Co., Milwaukee, Wis.	42261	Nankervis, George L., Co., Detroit, Mich.	42546	National Electric Welding Machines Co., Bay City, Mich.
41957	Mueller Machine Co., Inc., Trenton, N.J.	42266	Narragansett Machine Co., Providence, R.I.	42545	National Engineering Co., Chicago, Ill.
41967	Mueller, V., and Co., Chicago, Ill.	42271	American Motors Corp., Automotive Division, Kenosha, Wis.	42584	National Equipment Co., Marshall, Tex.
41974	Multi-Clean Maintenance Co., St. Paul, Minn.	42271	Nash Motor Division of Nash Kelvinator Corp., Kenosha, Wis.	42593	Cockshutt Farm Equipment, Inc., Shelbyville, Ind.
41976	Multiple Boring Machine Co., St. Louis, Mo.	42271	Nash Motors Division of American Motors Corp., Kenosha, Wis.	42593	National Farm Machine Cooperative, Inc., Shelbyville, Ind.
41977	Multigraph Sales Co., Cleveland, Ohio.	42280	Nash Engineering Co., The, South Norwalk, Conn.	42603	National Fireworks, Inc., West Hanover, Mass.
41995	Multiplex Display Fixture Co., St. Louis, Mo.	42299	Nash Kelvinator Corp., Detroit, Mich.		
41996	Multiplex Mfg. Co., Inc., Berwick,	42308	Nashua Mfg. Co., Nashua, N.H.		
		42318	Nashua Package Sealing Co., Inc., Nashua, N.H.		
		42319	Nassau Boat Basin, Inc., Freeport,		

B

Figure 3-13.—Federal supply code for manufacturers (FSCM): (A) H4-1, name to mfg. code; (B) H42, code to name.

requisition items from the C-MCRL. The C-MCRL is distributed to Navy users semiannually, on microfiche, by the Defense Logistics Services Center (DLSC).

Part 1 of the C-MCRL is a cross-reference between a reference number, an FSCM, and an NSN. Part 2 is a cross-reference between an NSN and a reference number.

Federal Supply Code For Manufacturers (FSCM)

The FSCM provides a five-digit identification number for commercial firms, primarily manufacturers,

that supply material to the Department of Defense. It is published in three volumes:

1. H4-1—Manufacturer's name to manufacturer's code
2. H4-2—Manufacturer's code to manufacturer's name
3. H4-3—Other countries

Figure 3-13, views A and B, show the format and content of H4-1 and H4-2. When you use the C-MCRL to determine an NIIN, you will frequently find the same

reference number listed more than once, with each listing having a different NIIN. For proper identification, you must then select the NIIN from the line entry showing the FSCM for the company that made the needed part.

The identification lists of the Federal Supply Catalog include the FSCM in the item descriptions. The introduction to each section includes a numerical listing of all FSCMs included in that section.

IDENTIFICATION TO A CURRENT NSN

To obtain required material, you must first find its current NSN. There are three basic methods of entry you may use with the catalogs to obtain this information:

1. Entry with an NSN (which may or may not be current)
2. Entry with a reference number (manufacturer's part number, Navy drawing number, or other reference number)
3. Entry with a noun name and or physical characteristics description

Entry With NSN

In actual practice, if you already have the NSN, you just submit the completed requisition to the supply department.

Entry With Part, Drawing, or Piece Number

A reference number is generally any number, other than a current NSN, that can be used to identify an item or to aid in determining the current NSN. Reference numbers, therefore, include old FSNs, electron tube numbers, and electronic equipment circuit symbol numbers. There are, however, two additional important types of reference numbers that you can convert to national stock numbers by using the C-MCRL. They are (1) manufacturer's part numbers and (2) Navy drawing and piece numbers.

Manufacturer's part numbers are numbers assigned to parts by the manufacturer who designs and builds the equipment. The manufacturers assign the numbers for their own use in cataloging and identifying their own material. Some manufacturers use part number systems in which their plan or drawing and piece numbers form all or a portion of their part numbers.

Navy drawing and piece numbers were assigned originally by Navy technical commands to identify

items in equipment built and or designed by those commands. Some items may have both manufacturer's part numbers and Navy drawing and piece numbers listed in various reference publications.

When you first try to determine an item's current NSN, you will probably look for a manufacturer's part number or a Navy drawing and piece number. There are several possible places to look for such numbers:

1. On an Allowance Parts List (APL).
2. On the part to be replaced. The part number may be stamped on it.
3. In equipment technical manuals. They may refer to a manufacturer's part number or Navy drawing and piece numbers.
4. On equipment plans. Plans available on the ship may contain Navy drawing and piece numbers.
5. In EIMB reference data.

Technical manuals, furnished by the manufacturer, contain a detailed description of equipment and instructions for its effective use. Normally, the supply officer does not have technical manuals; they are maintained and used by the ship's technicians in maintaining the complex equipment installed in the ship. They can serve as a basic source of identification information for repair parts.

To obtain a current NSN when you know a reference number, enter the C-MCRL to determine the NIIN. When the NIIN is listed, check to ensure that the FSCM coincides with that of the manufacturer of the part.

When the number is listed more than once, you will need to obtain the manufacturer's code. When you obtain the correct NIIN, update your records to reflect the current stock number.

Entry with Noun Name and or Physical Description

The third method of obtaining a current NSN involves beginning the search with a physical characteristic or noun name description of the item.

There are two different methods of describing an item other than by the NSN. The first method uses a physical description of the item and perhaps a description of its electrical, chemical, and other properties. (This type of description is similar to that provided in mail order catalogs.) The second method, which we covered previously, uses only a reference number; that is, manufacturer's part number. Most of the

items in the Navy Supply System are covered only by reference number descriptions because these items are very difficult to describe.

There are, however, many items that you can easily describe by physical characteristics. Included in this category are many common-use items of nontechnical nature, such as paint, handtools, nuts and bolts; and some technical items, such as fuses, resistors, and electron tubes.

You can find the NIIN for a common-use item with a noun name/physical characteristics description in the ASG or GSA catalog. The ASG is sequenced by Federal Supply Groups and Classes. A noun-name-item number index for the ASG is contained in the Introduction and Master Index.

PLANT PROPERTY

Plant property includes all real property (land or buildings and improvements) owned by the Navy or for which the Navy is accountable. This property may be located at either a Navy shore facility or in the plant of a private contractor. Plant property also includes all personal property of a capital nature (equipment) owned by the Navy. Plant property does not include items of equipment in storage (items that are carried) in the Navy Stock Account (NSA) but that have not been issued for end use. Also it does not include items in the custody of a unit of the operating forces that are moved with the unit. As an Electronics Technician carrying out fiscal and supply duties ashore, you may be called upon to perform tasks associated with plant property accounting.

Identification numbers are used with plant property items to make the following functions easier:

- Selection of specific items for transfer
- Physical inventories of equipment
- Maintenance of property record card files
- Specific identification of equipment items in shipment orders, invoices, and survey reports
- Maintenance of history record cards

Each item of equipment meeting the criteria of plant property is marked with an identification or registration number. This number is also recorded on the plant property record card maintained for that item.

Figure 3-14 is an example of an identification tag that you may find on a piece of electronic equipment.



Figure 3-14.-Sample plant property identification tag.

INTEGRATED LOGISTICS REVIEW (ILR)

A ship's ability to perform its operational missions depends to a large extent on the crew's ability to keep the equipment installed on board working as it is designed to work. To do your job as a technician, you must have the proper technical manuals, test equipment, planned maintenance material, and repair parts readily available for use. One of the Navy's efforts to deal with these requirements and to improve each command's readiness is called the Integrated Logistics Review (ILR). Working closely with this program is the Integrated Logistics Overhaul (ILO) program.

The ILO is scheduled to coincide with upgrades during overhaul periods. Under the guidance of an experienced ILO site staff member, called a ship project manager (SPM), a small number of selected personnel from the command aide in overhaul work to provide the command with complete logistics support. This system includes not only repair parts but also technical manuals and PMS materials for the equipment installed during an availability or overhaul.

Integrated logistics support (ILS) audits are performed on commands that have completed installation of new or modified systems and equipments during an overhaul or availability period. The logistics support planned for these alterations includes audits on the accuracy of the allowance parts list (APL), the coordinated shipboard allowance list (COSAL), and allowance appendix pages (APPs). The correct technical manual that coincides with the installed equipment configuration is reviewed. Test equipment required to perform maintenance functions is determined by reviewing maintenance requirement cards (MRCs). The Planned Maintenance System (PMS) documentation audits include verification of the command's list of effective pages (LOEP), maintenance index pages (MIPs), and maintenance requirement cards (MRCs). The adequacy of personnel training is checked. Spare parts are sight validated, as are the command's selected

records and drawings of the newly installed equipment. When the audits are completed, the command will be aware of deficiencies in the total support for the equipment on board. As a technician, you will be assured of the availability of everything necessary for you to maintain your equipment.

As an Electronics Technician, your job is to have your equipment in good repair and ready for action. You also must know how to research the supply publications so you can identify the repair parts you need. You must

feed information into the supply system so parts will be available when you need them. Finally you must know how to obtain those parts through the supply system.

As you advance in paygrade and responsibilities, you will become aware that as a technician you are one of many people who make up the repair team. Now is the time for you to work closely with the Storekeepers and learn the supply system so that it will work for you and not delay any of your repair tasks.

